Remarks

A Third Information Disclosure Statement is enclosed citing a reference not already of record which recently appeared as a NEW CITATION in a Written Opinion of the Patent Cooperation Treaty prosecution of a counterpart of this application.

The pending Official Action withdraws a Final Rejection which had been appealed and for which a brief on appeal had been filed. The current rejection is very much like the prior rejection but adds to the rejection the citation of the Aslam reference. Aslam is cited for having a smooth (no bubbles) surface.

Claims 1-4 and 8-10 are rejected as obvious over the Ochiai reference in view of the Kobayashi reference and the Aslam reference. This rejection is respectfully traversed. A smooth surface of a roller of this invention is incidental and not claimed. The surface clearly can be the same a prior art magnetic roller. The basic novelty of the claims is that the bubbles are internal. This provides reduced materials costs and reduced expense in handling and shipment, as well as potential advantages during manufacture.

Aslam roller is a roller for a fuser. A fusing roller having a smooth outer layer hardly suggests modification of two other references to relocate foam bubbles in one of the references.

With respect to the other references: Ochiai is cited to show a magnetic roller formed of a material of at least 50-90% ferrite magnetic power [interpreted in this response as meaning "powder"] resin. Kobayashi is cited to show a roller using a foamed resin coating.."

It is respectfully pointed out that the Kobayashi reference is deficient with respect to the claims for two separate reasons, each on which is decisive to establish patentability of the claims.

The first basis distinguishing Kobayashi is that the foam of Kobayashi is not restricted to its interior. Claim 1, the only independent claim pending, expressly requires "no bubbles of said foam at the outside of said roller." Kobayashi clearly shows in Fig. 8 bubbles extending to the surface of the roller. Kobayashi as a whole in no way suggests that its foam somehow has a discernable pattern of bubbles. No description of the distribution of the foam bubbles is given in Kobayashi other than the term "closed-cell foam" (used several times) and Fig. 8. Fig. 8 of Kobayashi shows bubbles throughout the foam with several contiguous to the outer surface.

The second basis distinguishing Kobayashi is that the foam of Kobayashi is in no respect magnetic. A magnetic material is clearly required by the claims. The foam of Kobayashi is to provide a yielding surface while being closed to prevent toner from entering the roller. Thus, col. 2., l. 23-27 of Kobayashi read: "When a toner supply roller consists of closed-cell foam rubber free from internal toner clogging, the toner coating/removal performance with respect to the sleeve, and triboelectric charging performance of the toner can be satisfactorily maintained • • • ."

The pending rejection references roller 20 of Kobayashi. Although element 20 is a magnetic roller (see col. 15, l. 41-45), that is not foam. The foam is formed around roller 20 (Col. 15, l. 44-45 read: "closed-cell foam is formed on the surface of the magnetic roller.") This is shown as the element having reference numeral 26 in Fig. 9, although the reference numeral 26 is not in the discussion of Fig. 9 and is used to identify the entire supply roller in the discussion of Fig. 5 and is applied to the entire roller in Fig. 8.

Since the Kobayashi foam has no particular magnetic function or characteristic, no suggestion can be found to combine its teaching with the teaching of the solid magnetic roller of Ochiai.

In fact, Kobayashi teaches away from the instant invention since it shows a solid magnetic core and foam with bubbles only outside the core.

As discussed early in these remarks, Aslam is to a fuser roller and therefore does not suggest that Kobayashi be modified for purposes specific to a magnetic roller.

The Lee reference and the other applications of Ochiai reference, are applied to elements of dependent claims and therefore could not overcome the deficiencies of the rejection of claim 1 discussed in the foregoing. This applies to the reasons in the pending rejection with respect to claims and 9, and 10 and to the rejection for obviousness of claims 5-6 with respect to Nylon in the second embodiment of Ochiai and the rejection for obviousness of claim 7 with respect to strontium of Lee.

Additionally, with regard to claims 9 and 10, Kobayashi is not to foamed magnetic composition and so could not suggest a 5 weight percent reduction of the material because of being foamed. Claim 9 is specific to a reduction of at least 5 weight percent while exhibiting equivalent magnetic performance. Claim 10 is specific to a reduction of at least 5 weight percent while exhibiting equivalent mechanical strength.

The pending rejection cites no added reference and merely states: "Regarding claims 9-10, the specific ratio of filler and resin would have been an obvious design consideration based on the specific operating environment." This does not address weight reduction from foaming at all. As discussed in the foregoing, Ochiai is not about a foamed roller and Kobayashi is not about magnetic foam, and Aslam is not about a magnetic roller.. Accordingly, each of claims 9 and 10 appear broadly novel and therefore patentable.

Accordingly, a decision allowing claim 1-10, all of the pending claims, is respectfully requested.

Respectfully submitted,

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